

REMARKS

Claims 2-5 and 7-15 presently are pending. Claims 1 and 6 have been canceled. Claims 2, 3 and 4 have been rewritten in independent form. New claims 7-15 have been added. Reconsideration and allowance of all claims are respectfully requested in view of the following remarks.

The Examiner has kindly acknowledged the claim for foreign priority under 35 U.S.C. § 119, as well as receipt of the certified copy of the priority document.

The Examiner has also enclosed an initialed copy of the Form PTO-1449 thereby indicating that he has considered the reference listed thereon.

The Examiner's indication that dependent claims 2-4 are objected to as being dependent upon a rejected base claim, but would be allowable is rewritten in independent form including all of the limitations of the base claim and any intervening claims is greatly appreciated. Accordingly, claims 2, 3 and 4 have been placed in independent form.

Claims 1, 5 and 6 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,703,900 (Nozaki et al.). For the following reasons, this rejection is respectfully traversed.

A method consistent with the present invention relates to an optical component fixing method using an adhesive to fix an optical component, such as but not limited to a resonator mirror 14, and a support, such as but not limited to a holder 21, on which the optical component is to be fixed at a prescribed location. The method comprises a step of scoring a surface of the

support; a step of bringing the optical component into close contact with the scored surface of the support; and a step of flowing a fluid adhesive along kerfs produced by the scoring.

An apparatus consistent with the present invention relates to an optical component support for fixing an optical component, the support comprising a surface provider with scoring kerfs for fixing the optical component.

In the rejection under § 102(b), the Examiner maintains that Nozaki discloses a procedure for mounting a mirror to a surface of a solid-state laser. In particular, the Examiner maintains that Nozaki describes the surface as having a superfine cutting finish and further describes bringing the surfaces of the mount and mirror in close contact and dropping an adhesive between the surfaces, thereby achieving affixment of the mirror to the surface mount (referencing column 4, line 12 as well as lines 20 - 24).

Nozaki relates to a laser-diode-pumped solid state laser in which a solid state laser crystal is pumped by a laser diode (semiconductor laser) and, in particular, to such a laser having improved resonator mirror mounting structure.

More specifically, Nozaki discloses a second holder 21 having opposite end faces which are ground to mirror mounting surfaces 21a and 21b extending perpendicular to the optical axis of the resonator. An Nd:YAG crystal 13, which also functions as a resonator mirror, is fixed to the second holder 21 by bonding a light-transmissive 13b to the mirror mounting surface 21a. A resonator mirror 14 is fixed to the second holder 21 by bonding the peripheral surface 14b outside the mirror surface 14a to the mirror mounting surface 21b.

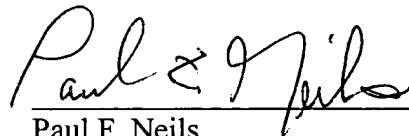
AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Patent Application No. 09/534,034

However, Applicants have canceled independent claims 1 and 6 and amended each of the objected-to claims 2, 3, and 4 into independent form, and have further amended dependent claim 5 to depend from any one of claims 2-4. In a similar fashion, new independent apparatus claims 7-9 have been added which are similar to independent method claims 2, 3 and 4 and are likewise patentable (please refer to the attached appendix). Also, additional dependent apparatus claims 10 and 11, and dependent method claims 12-15 have been added to further define other features of the invention (support for these claims can be found, for example, on page 8, lines 1-12 of the subject application).

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Applicant hereby petitions for any extension of time which may be required to maintain the pendency of this case, and any required fee, except for the Issue Fee, for such extension is to be charged to Deposit Account No. 19-4880.

Respectfully submitted,



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APPENDIX
VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Claims 1 and 6 are canceled.

The claims are amended as follows:

2. (Amended) An optical component fixing method using an adhesive to fix an optical component and a support on which the optical component is to be fixed at a prescribed location, the method comprising:

a step of scoring a surface of the support;

a step of bringing the optical component into close contact with the scored surface of the support; and

a step of flowing a fluid adhesive along kerfs produced by the scoring,

[An optical component fixing method according to claim 1,]

wherein the scoring kerfs are formed at a pitch of 3 μm - 300 μm .

3. (Amended) An optical component fixing method using an adhesive to fix an optical component and a support on which the optical component is to be fixed at a prescribed location, the method comprising:

a step of scoring a surface of the support;

a step of bringing the optical component into close contact with the scored surface of the support; and

a step of flowing a fluid adhesive along kerfs produced by the scoring,

[An optical component fixing method according to claim 1 or 2,]

wherein the scoring kerfs are formed to a depth of 0.1 μm - 1 μm .

4. (Amended) An optical component fixing method using an adhesive to fix an optical component and a support on which the optical component is to be fixed at a prescribed location, the method comprising:

a step of scoring a surface of the support;

a step of bringing the optical component into close contact with the scored surface of the support; and

a step of flowing a fluid adhesive along kerfs produced by the scoring,

[An optical component fixing method according to any of claims 1 to 3,]

wherein an attachment surface of the support has a flatness of 1 μm or less.

5. (Amended) An optical component fixing method according to any one of claims [1] 2 to 4, wherein the optical component is a component of a solid state laser apparatus.

Claims 7-15 are added as new claims.